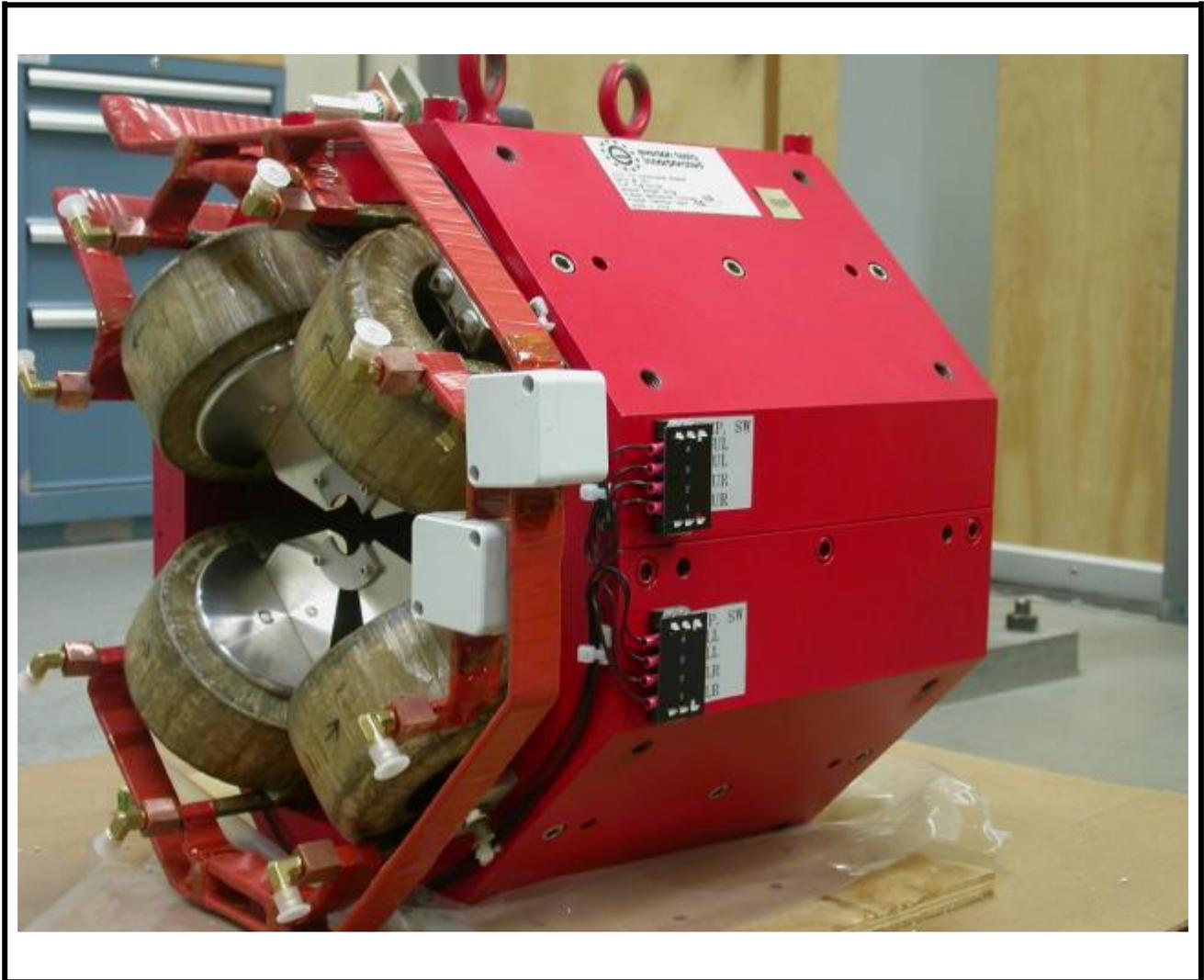


LCLS 'Q150kG' LTU QUADRUPOLE MAGNET FIDUCIALIZATION REPORT



Inspector: Keith Caban
Responsible Engineer: Carl Rago
Date: Tuesday, January 15, 2008
Work Order/Charge No.: 9242609
Serial Number: SLAC – 002614 / SN 007
URL of Fiducial Report: <\\Web002\www-group\met\Quality\FIDUCIAL REPORTS\LCLS LTU Q150kG QUADS\002614.pdf>

Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

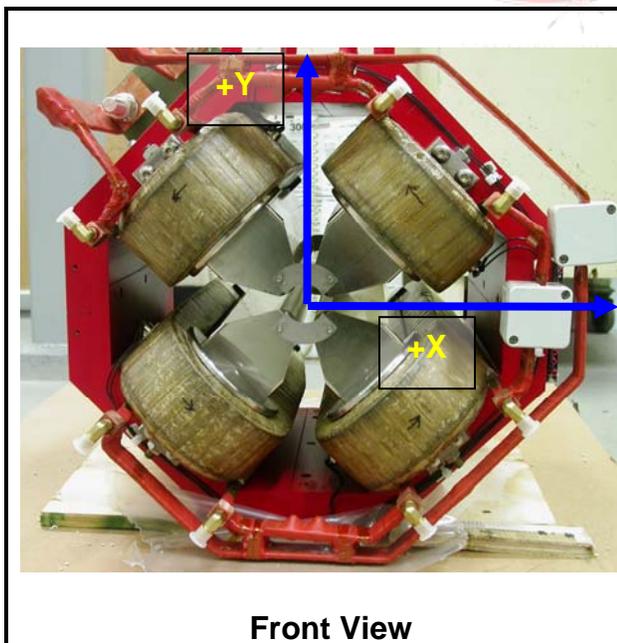
- Plane on top of magnet where tooling ball sockets are welded to.

“Z” Zero

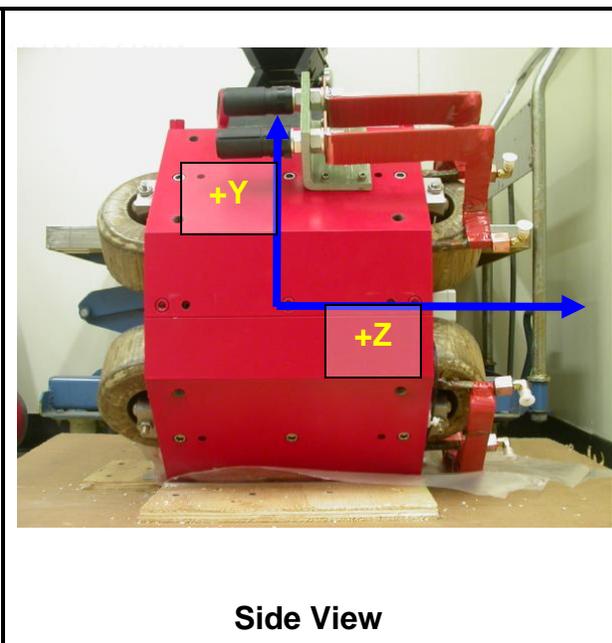
- Mid-plane of the magnet (middle of upstream and downstream ends).

“X” & “Y” Zero

- Geometric axis of the poles of the magnet.

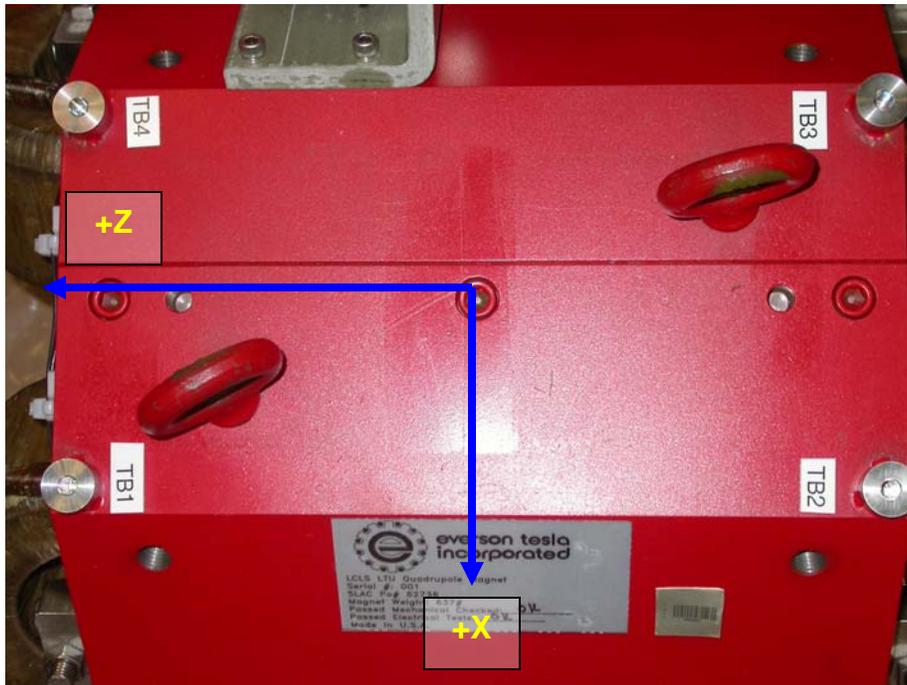


Front View



Side View

Tooling Ball Measurements/Locations

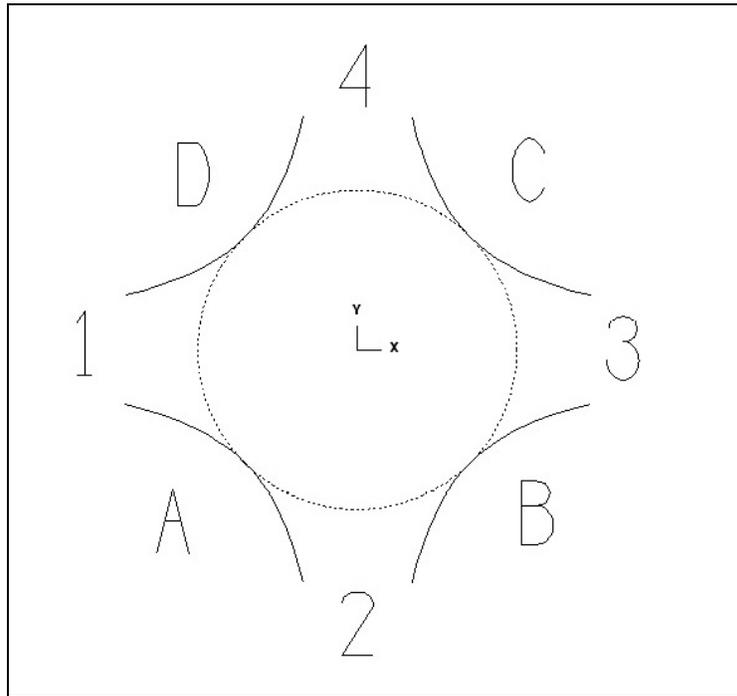


Tooling Ball Adapter Cylinder Projected 1" Offset to the Tooling Ball Adapter Plane

Tooling Ball	Form	Cyl. Dia.	X	Y	Z	⊥
Proj. TB 1	0.00012	0.24988	2.66059	10.21379	5.60697	0.00053
Proj. TB 2	0.00011	0.24999	2.65060	10.20905	-5.60846	0.00008
Proj. TB 3	0.00010	0.25005	-2.64416	10.21021	-5.61097	0.00013
Proj. TB 4	0.00011	0.25001	-2.63661	10.21548	5.60174	0.00009

Pole Data

*Data looking from Downstream End



SLAC

Side	Pole Dist A-C	Pole Dist B-D	Gap 1	Gap 2	Gap 3	Gap 4
Downstream End (+Z)	1.25952	1.25982	0.43480	0.43041	0.43458	0.43502
Upstream End (-Z)	1.26001	1.25963	0.43461	0.43069	0.43569	0.43418